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(21)Application number : 2001-136149 (71)Applicant : MATSUSHITA ELECTRIC IND  
CO LTD

(22)Date of filing : 07.05.2001 (72)Inventor : IWAMOTO KOJI

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(54) INFORMATION TERMINAL, CONNECTION SUPPORT SERVER, CONNECTION  
SUPPORT SYSTEM AND PROGRAM

(57)Abstract:

PROBLEM TO BE SOLVED: To provide an information terminal, a connection support server, a connection support system and a program, by which setting for connecting an information terminal to a provider is performed without having a user perform complicated setting to the information terminal and without having a sales shop side take time and labor in setting work.

SOLUTION: The telephone number of the connection support server is stored in the information terminal beforehand. When the user turns on the power of the information terminal, the information terminal is connected to the connection support server by a

telephone and acquires information required for connecting a network from the connection support server and further, the information terminal itself performs the setting for connecting the network on the basis of the acquired information.

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**CLAIMS**

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[Claim(s)]

[Claim 1] In the information terminal connected to a network through predetermined repeating installation A handshake point information storage means by which the handshake point information which is the connection place of the connection exchange server holding an initial entry required for connection with the above-mentioned repeating installation was memorized beforehand, An acquisition means to connect with the above-mentioned connection exchange server using the handshake point information memorized by the above-mentioned handshake point information storage means, and to acquire the above-mentioned initial entry from this connection exchange server, The

information terminal characterized by having a setting-out means to connect with the above-mentioned repeating installation based on the setting out concerned while performing setting out for connecting with the above-mentioned repeating installation using the initial entry which the above-mentioned acquisition means acquired.

[Claim 2] The above-mentioned acquisition means is an information terminal according to claim 1 which transmits the identification information which can specify the information terminal concerned to the above-mentioned connection exchange server in case the above-mentioned initial entry is acquired, and acquires the initial entry corresponding to this identification information.

[Claim 3] The above-mentioned initial entry includes the service information which is the content of the service which the provider who employs the above-mentioned repeating installation offers. The above-mentioned acquisition means A service information-display means to display two or more sorts of service information included in two or more sorts of acquired above-mentioned initial entries selectable, It has a selection reception means to receive selection of two or more sorts of above-mentioned service information which this service information-display means displayed selectable. The above-mentioned setting-out means The information terminal according to claim 1 or 2 connected to the above-mentioned repeating installation based on the setting out concerned while performing setting out for connecting with the above-mentioned repeating installation using the above-mentioned initial entry including the service information received with this selection reception means.

[Claim 4] The information terminal according to claim 1 which is the set top box by which the above-mentioned information terminal is connected to television or television.

[Claim 5] The above-mentioned identification information is an information terminal containing at least one of the serial number of the information terminal concerned, a part number, and the model names according to claim 2.

[Claim 6] The above-mentioned identification information is an information terminal according to claim 2 which is the telephone number by the side of the information terminal used when connecting with the above-mentioned connection exchange server.

[Claim 7] The connection exchange server characterized by providing a connection information storage means to memorize an initial entry required for connection with the predetermined repeating installation of an information terminal, and an initial entry offer means to transmit the initial entry memorized by the above-mentioned connection information storage means to this information terminal when the above-mentioned information terminal is connected.

[Claim 8] While the above-mentioned connection information storage means matches the identification information which can specify the above-mentioned information terminal transmitted from the predetermined input terminal, and the above-mentioned initial entry or memorizes them possible [ a response ] The above-mentioned initial entry offer means is a

connection exchange server according to claim 7 which acquires the above-mentioned initial entry corresponding to the this transmitted identification information from the above-mentioned connection information storage means, and transmits when the identification information of the above-mentioned information terminal to the connected information terminal concerned is transmitted.

[Claim 9] The above-mentioned initial entry is a connection exchange server including the service information which is the content of the service which the provider who employs the above-mentioned repeating installation offers according to claim 7 or 8.

[Claim 10] Furthermore, the connection exchange server [ equipped with an updating recognition means to update the initial entry which the connection exchange server concerned possesses based on renewal of this while recognizing renewal of the above-mentioned initial entry ] according to claim 9.

[Claim 11] A connection information storage means to memorize the initial entry of \*\* which a predetermined information terminal connects to the repeating installation which relays connection with a network, An initial entry offer means to provide this information terminal with the initial entry memorized by the above-mentioned connection information storage means when a predetermined information terminal is connected, The above-mentioned connection exchange server to provide and a handshake point information storage means by which the connection place information which is the connection place of the above-mentioned connection exchange server was memorized beforehand, An acquisition means to connect with the above-mentioned connection exchange server using the connection place information memorized by the above-mentioned handshake point information storage means, and to acquire the above-mentioned initial entry from this connection exchange server, The connection support system characterized by consisting of information terminals possessing a setting-out means to connect with the above-mentioned repeating installation based on the setting out concerned while performing setting out for connecting the above-mentioned repeating installation using the initial entry which the above-mentioned acquisition means acquired.

[Claim 12] Furthermore, it has the input terminal which transmits the identification information which can specify the above-mentioned information terminal, and the information of the provider who employs the above-mentioned selected repeating installation to the above-mentioned connection exchange server. An above-mentioned connection information storage means to constitute the above-mentioned connection exchange server While matching the above-mentioned identification information transmitted from the above-mentioned input terminal, and the initial entry corresponding to a provider's information by which selection was made [ above-mentioned ] or memorizing possible [ a response ], the above-mentioned initial entry offer means The connection support system according to claim 11 which acquires the above-mentioned initial entry corresponding to the

this transmitted identification information from the above-mentioned connection information storage means, and is transmitted when the identification information of the above-mentioned information terminal to the connected information terminal concerned is transmitted.

[Claim 13] The connection step which connects with the information terminal connected to a network through predetermined repeating installation at the above-mentioned connection exchange server using the above-mentioned connection place information on the connection exchange server holding an initial entry required for connection with the above-mentioned repeating installation memorized beforehand, The program which performs the setting-out step which connects with the above-mentioned repeating installation based on the setting out concerned while performing setting out for connecting with the above-mentioned repeating installation using the initial entry acquired at the acquisition step which acquires the above-mentioned initial entry from the above-mentioned connection exchange server, and the above-mentioned connection step.

[Claim 14] The above-mentioned acquisition step is a program according to claim 13 which transmits the identification information which can specify the information terminal concerned to the above-mentioned connection exchange server in case the above-mentioned initial entry is acquired, and acquires the initial entry corresponding to this identification information.

[Claim 15] The above-mentioned initial entry includes the service information which is the content of the service which the provider who employs the above-mentioned repeating installation offers. The above-mentioned acquisition step The service information-display step which displays two or more sorts of service information included in two or more sorts of acquired above-mentioned initial entries selectable, It consists of selection reception steps which receive selection of two or more sorts of above-mentioned service information displayed by the above-mentioned service information-display step selectable. The above-mentioned setting-out step The program according to claim 13 or 14 connected to the above-mentioned repeating installation while performing setting out for connecting with the above-mentioned repeating installation using an initial entry including the service information received at this selection reception step.

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## DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] Especially this invention relates to the information terminal, the

connection exchange server, the connection exchange support system, and PUROGUMU for supporting setting out for connecting the repeating installation which relays an information terminal, this information terminal, and a network about an information terminal, a connection exchange server, a connection exchange support system, and PUROGUMU.

[0002]

[Description of the Prior Art] Conventionally, although connection with the Internet was mainly made at the home using the personal computer, digital household electric appliances, such as television equipped with the connect function of the Internet, are developed in recent years. By using the digital household electric appliances concerned, looking at a television screen, actuation can operate remote control of television to which it was easy and is used, and can use the Internet. Therefore, the opportunity for the user who does not use the Internet until now using a personal computer to use the Internet using digital household electric appliances has been increasing.

[0003]

[Problem(s) to be Solved by the Invention] By the way, information terminals, such as a personal computer and digital household electric appliances, are connected to the Internet through the repeating installation which a provider generally employs. Therefore, in order to connect an information terminal to the Internet, a user needs to perform complicated setting out for connecting an information terminal to repeating installation to an information terminal. However, even if the original function of home electronics generally does not perform actuation with a complicated user unlike a personal computer, it can demonstrate. Therefore, a user unfamiliar to the handling of a personal computer can say that it is unfamiliar also to setting out, and has the problem that complicated setting out for connecting digital household electric appliances etc. to repeating installation cannot be carried out. Therefore, such a user may request setting out of a connecting [ to repeating installation ]-digital household electric appliances etc. sake from a dealer, therefore may purchase digital household electric appliances, and may be unable to use the Internet immediately.

[0004] On the other hand, since it is necessary to visit and set up a user's house when there is a request of the above setting out from a user, considering the position by the side of a dealer, there is a problem that a staff etc. must be secured.

[0005] Moreover, there is also a method of performing the above setting out to digital household electric appliances in a dealer at the time of digital household-electric-appliances purchase for the user who cannot do setting out. However, in order to carry out setting out for connection to digital household electric appliances actually, packing of digital household electric appliances will be unpacked, setting out will be carried out, the activity which packs up digital household electric appliances again will be needed, and time and effort will be taken for a dealer.

[0006] So, it aims at offering the information terminal and connection exchange server which give a provider setting out which connects an information terminal, a connection support system, and a program in this invention, without [ without a user carries out complicated setting out to an information terminal, and ] a dealer side imposing time and effort on setting out.

[0007]

[Means for Solving the Problem] The following means are used for this invention in order to attain the above-mentioned object.

[0008] A handshake point information storage means by which the handshake point information for connecting with the connection exchange server which holds an initial entry required for connection with this repeating installation to the information terminal linked to repeating installation was memorized beforehand is established. The information terminal concerned is connected to the above-mentioned connection exchange server using the handshake point information memorized by the handshake point information storage means.

[0009] If the information terminal concerned is connected with the above-mentioned connection exchange server, the acquisition means formed in the information terminal concerned will acquire and acquire the above-mentioned initial entry from this connection exchange server.

[0010] Next, the setting-out means formed in the information terminal concerned is connected to the above-mentioned repeating installation based on the setting out concerned while it carries out setting out for connecting the above-mentioned repeating installation and the information terminal concerned using the initial entry which the above-mentioned acquisition means acquired to the information terminal concerned.

[0011] therefore, in this invention, the information terminal itself connects an information terminal and the above-mentioned repeating installation concerned -- in order to perform a law, a user does not need to perform complicated setting out like before, in order to connect an information terminal and the above-mentioned repeating installation concerned.

[0012] Moreover, as for a service information display means by which the service information which is the content of the service which the provider who employs the above-mentioned repeating installation provides with the above-mentioned initial entry is included, and constitutes the above-mentioned acquisition means, a user displays the service information by which it is included in this initial entry when the above-mentioned acquisition means acquires two or more sorts, for example, two or more companies, of providers' initial entry selectable. Therefore, if a user chooses a desired provider with reference to the displayed service information using a selection reception means to constitute the above-mentioned acquisition means, while carrying out setting out for connecting the above-mentioned setting-out means with the above-mentioned repeating installation based on a provider's this chosen service information and a corresponding initial entry, based on the setting out

concerned, it will connect to the above-mentioned repeating installation.

[0013] Therefore, a user can choose one provider linked to the above-mentioned information terminal with reference to two or more sorts of service information.

[0014]

[Embodiment of the Invention] The connection support system of this invention has the composition that the connection exchange server 10 and the information terminal 20 of each other equipped with the network connection function were connected through the telephone line as shown in drawing 1 . In the gestalt of this operation, the repeating installation 40 which relays a network is further connected to this connection support system through this information terminal 20 and the telephone line.

[0015] Moreover, the above-mentioned information terminal 20 is an information terminal equipped with the network connection function. The above-mentioned connection exchange server 10 has memorized the initial entry required for the information terminal 20 to connect with repeating installation 40, and the above-mentioned repeating installation 40 is equipment currently managed by junction contractors, such as a provider who relays for example, an information terminal and a network, and it explains it below for details. In addition, it explains taking the case of television (television 20 is called hereafter) on which it had the Internet connectivity function as an information terminal 20 in the gestalt of the following operations.

[0016] (Gestalt 1 of operation) When the user purchased television 20 in the dealer, in the former, the user brought television 20 home and was performing complicated setting out for the user itself to connect television 20 to a provider.

[0017] With the gestalt of this operation here, in order that a user may save the time and effort of the above complicated setting out at a house, a user chooses the predetermined service course in which it decided on connection fees, connectable time amount, etc. which the provider (repeating installation) who connects with television 20 in a dealer at the time of the purchase of television 20, and the provider concerned offer, and tells a salesman by making a selection result into a selection condition. You may make it specify the predetermined conditions for selection of a service course as "a connect time's connection fees are unrestricted for 1000 or less yen". [ this selection not only specifies a predetermined service course like "OO service course which an OOxx provider offers", but "it being access point \*\* in area code (06) area" or here, and ]

[0018] In addition, the user should tell the salesman the selection condition "an ABCD provider's A service course" here.

[0019] If the selection condition 330 "an ABCD provider's A service course" is told to a salesman from a user as shown in drawing 3 (d), he will input into an input unit 30 the selection condition 330 "an ABCD provider's A service course." Furthermore, in case a salesman inputs a selection condition 330 into an input device 30, he inputs into the input

terminal 30 User Information 310 shown in drawing 3 (b) and (c), and the identification information 320 of television 20 ( drawing 2 , S201). In User Information 310, it is the information of an individual required for an agreement with a provider, for example, is the information which consists of a user's identifier 311, the telephone number 312, an address 313, and number 314 grade of a credit card here. Moreover, it is the information which can specify uniquely predetermined television, such as a serial number of television 20, a part number, and a model name, in the identification information 320 of television 20. This identification information 320 is stored in storages, such as ROM included in television 20 at the time of manufacture of television 20.

[0020] In addition, you may make it display this identification information 320 on the outside surface of packing of television 20 so that a salesman can check the identification information 320 of television 20 easily to the input terminal 30 in the case of an input.

[0021] It is transmitted to the above-mentioned connection exchange server 10 through User Information 310 by which the input was carried out [ above-mentioned ], identification information 320, a selection condition 330, and the \*\* Internet ( drawing 2 , S202).

[0022] when the above-mentioned connection exchange server 10 received User Information 310 transmitted from the above-mentioned input terminal 30, identification information 320, and a selection condition 330, it was prepared in this connection exchange server 10 -- it starts with means 11 corresponding to an initial entry ( drawing 2 , S203-S204). The above-mentioned with means 11 corresponding to an initial entry searches the initial entry 300 memorized by the connection information storage means 12 formed in the above-mentioned connection exchange server 10 at the selection condition 330 which the above-mentioned connection exchange server 10 received, i.e., here, using "an ABCD provider's A service course", and a user's telephone number 312 contained in User Information 310 ( drawing 2 , S205). With this initial entry, as shown in drawing 3 (a), it consists of information for connecting the provider and information terminal containing the telephone number 302 grade of a provider's access point, and the provider name 301, the service course name 303, connection fees 304, a connect time 305 and the service information 307 containing discount service 306 grade peculiar to each provider.

[0023] The above-mentioned with means 11 corresponding to an initial entry detects one initial entry 308 for \*\*\*\* by the above-mentioned retrieval from the telephone number 302 of the access point in the same area as the area code of a user's telephone number 312, and the service information 307 on the service course 332 which the user chose ( drawing 2 , S206).

[0024] Then, the above-mentioned with means 11 corresponding to an initial entry matches with the above-mentioned initial entry 308 User Information 310 and identification information 320 which the above-mentioned connection exchange server 10 received ( drawing 2 , S207). This matching is that an initial entry offer means 14 to mention later enables it to specify the initial entry 308 applicable to the above-mentioned retrieval based on

the identification information 320 transmitted on television 20.

[0025] On the other hand, a user brings the purchased television 20 home, inserts the telephone line in the modular jack with which television was equipped, and switches on the power source of television 20.

[0026] Then, the acquisition means 22 formed in the television 20 concerned is dialed up to the above-mentioned connection exchange server 10 through the telephone line inserted in the modular jack with which television 20 is equipped with reference to a handshake point information storage means 27 by which the connection place information on the above-mentioned connection exchange server 10 is memorized. In addition, with the gestalt of this operation, the telephone number shall be memorized by the handshake point information storage means 27 as connection place information.

[0027] Thereby, if television 20 is connected with the above-mentioned connection exchange server 10 through the telephone line and television 20 is connected to the above-mentioned connection exchange server 10, as for the above-mentioned acquisition means 22, it will come to transmit the identification information of the television 20 stored in Above ROM to the above-mentioned connection exchange server 10. (Drawing 2 , S208) .

[0028] In addition, although the above-mentioned acquisition means 22 is dialed up to the above-mentioned connection exchange server 10 through a modular jack and the telephone line in the above, you may make it dial up to the above-mentioned connection exchange server 10 through means of communications, such as PHS with which television 20 was equipped. Moreover, you may make it dial up to the above-mentioned connection exchange server 10 from television 20 serve as a free dial as one of the services of a television manufacturer.

[0029] Next, if the above-mentioned connection exchange server 10 receives identification information 320 from the above-mentioned acquisition means 22, the connection news offer means 14 with which the connection exchange server 10 concerned was equipped will recognize the identification information 320 concerned ( drawing 2 , S209).

[0030] Then, this connection news offer means 14 searches the above-mentioned connection information storage means 12 based on the identification information 320 concerned. Furthermore, the above-mentioned connection news offer means 14 acquires the initial entry 308 applicable to retrieval from the above-mentioned connection information storage means 12 ( drawing 2 , S210).

[0031] This connection news offer means 14 transmits the this acquired initial entry 308 and User Information 310 matched with this initial entry 308 to television 20 ( drawing 2 , S211).

[0032] As mentioned above, if a user turns on television 20, the above-mentioned acquisition means 22 can acquire the initial entry 308 corresponding to the service course 332 which filled the selection condition 330 which the user specified in the dealer from the above-mentioned connection exchange server 10.

[0033] Then, if the information terminal 20 receives User Information 310 and an initial entry 308, a service information-display means 26 to constitute the above-mentioned acquisition means 22 will display the service information 307 concerned for example, on a television screen so that a user can grasp easily the service information 307 included in the acquired initial entry 308. As shown in drawing 4 , a television screen is seen, the service information 307 is checked, and a user will transmit an initial entry 308 and User Information 310 to the above-mentioned setting-out means 25 further here with the service course name 303 contained in the service information which acquired the above-mentioned acquisition means 22, if the depression of the confirmation button with which remote control of television 20 etc. was equipped is carried out ( drawing 2 , S212).

[0034] The above-mentioned setting-out means 25 sets the initial entry 308 transmitted from the above-mentioned acquisition means 22 as television 20. This setting out is setting the address of a POP (Post Office Protocol) server and an SMTP (Simple Mail Transfer Protocol) server, various kinds of protocols required in order to connect with a network in addition to this, etc. as television 20, when the procedure of an agreement with a provider is completed in the telephone number 302 of the access point included in an initial entry 308, and a dealer.

[0035] The above-mentioned setting-out means 25 is dialed up to the provider 40 who offers the service course 332 which the user chose through the above-mentioned means of communications after such setting out. If an inquiry of the telephone number, a matter, for example, a user's identifier, required for an agreement, the service course name a contract of etc. is made in television 20 from a provider 40 here, the above-mentioned setting-out means 25 will transmit an identifier 311, the telephone number 312, and the service course name 332 grade that the user chose to a provider 40 from User Information 310. Of course, in case the above-mentioned setting-out means 25 is dialed up to a provider 40, it may transmit the information on a user's identifier 311, the telephone number 312, and the service course name 332 grade that the user chose to a provider 40.

[0036] Thus, it carries out by repeating transmission and reception of the information about a matter required in order to make a contract of the above-mentioned setting-out means 25 with a provider 40 instead of a user, and the agreement of the service course which the user chose is concluded ( drawing 2 , S213).

[0037] As mentioned above, a user cannot perform complicated setting out for connecting with a provider to television, can contract with a desired service course only by switching on the power source of television henceforth, and can connect television and a provider. Moreover, since setting out for connecting with a provider as mentioned above becomes easy, it is possible that the setting-out request for connection with the provider from the user to a dealer decreases, therefore a dealer does not need to perform reservation of a staff etc. for such a setting-out request. Furthermore, the activity which unpacks packing of television 20, sets it as television 20, and packs up television 20 with establishing the input terminal 30

again in order to set it as television 20 grade for connecting with a provider is not needed. Furthermore, a possibility of losing the guarantee of television into which it was put in packing etc. disappears by excluding the activity which takes television 20 in and out of packing.

[0038] In addition, although the serial number of television 20, the part number, and the model name were used for the above-mentioned identification information, you may be the telephone number of the telephone line used in order to connect television 20 to the Internet, for example, a user.

[0039] Now, although the communication link with a provider is attained by the above-mentioned processing, it is expected that the initial entry 300 described above is updated at the time of an indeterminate. For this reason, the above-mentioned connection exchange server 10 is equipped with an updating recognition means 15 to recognize renewal of an initial entry 300.

[0040] That is, the updating recognition means 15 checks periodically the initial entry 300 stored in the server which each provider employs through the Internet, and recognizes renewal of an initial entry 300. The above-mentioned updating recognition means 15 will search the provider name 301 concerned registered into the above-mentioned connection information storage means 12 using the provider name which had renewal of an initial entry 300 here here, if renewal of a predetermined provider's initial entry 300 is recognized. Next, the initial entry 300 containing the provider name 301 applicable to this retrieval is updated to the initial entry after updating.

[0041] Thus, when the above-mentioned connection news offer means 14 is dialed [ television / 20 ] up to the above-mentioned connection exchange server 10, it can always transmit the newest initial entry 300 to television 20, because the above-mentioned updating recognition means 15 updates the above-mentioned connection information storage means 12. Moreover, a user can refer to the newest service information 307 on a television screen etc. as mentioned above, and the above-mentioned setting-out means 25 can set up television 20 based on the newest initial entry 300.

[0042] Moreover, if the telephone number 302 of the access point used until now is changed and setting out accompanying this modification will not be performed to television 20, the above-mentioned setting-out means 25 is not connectable with an access point. Then, when the telephone number 302 of an access point is changed, the above-mentioned setting-out means 25 is made to set up television 20 as follows.

[0043] For example, it detects by the interruption at the time of dialing up to an access point that the above-mentioned setting-out means 25 is not connectable with an access point by modification of the telephone number 302 of an access point etc. If it notifies that the setting-out means 25 concerned is not connectable with the above-mentioned acquisition means 22 with this detection at a provider 40 and this advice is received, it will display on a

television screen that the above-mentioned acquisition means 22 is not connectable with a provider 40. A user operates the connection switch key prepared in remote control of television 20, and he sends directions to television 20 here so that telephone connection may be made at the above-mentioned connection exchange server 10. If television 20 receives these directions, the above-mentioned acquisition means 22 will connect with the above-mentioned connection exchange server 10 again with reference to the above-mentioned connection place information storage means 27.

[0044] Then, the above-mentioned acquisition means 22 requires a provider's 40 newest initial entry 300 as transmitting to television 20 from the above-mentioned connection exchange server 10. If the above-mentioned connection exchange server 10 receives the demand concerned, the above-mentioned connection news offer means 14 will acquire a provider's 40 initial entry 300 from the above-mentioned connection information storage means 12 again, and will transmit a provider's 40 newest initial entry 300 to the above-mentioned acquisition means 22. If the above-mentioned acquisition means 22 receives the newest initial entry 300, the newest initial entry 300 will be transmitted to the above-mentioned setting-out means 25, and this setting-out means 25 performs setting out for connecting television 20 to a provider 40 based on the newest initial entry 300 as mentioned above here.

[0045] A user can connect television 20 to the access point after modification of the telephone number as mentioned above, without a user doing complicated actuation with modification of the telephone number 302 of an access point.

[0046] (Gestalt 2 of operation) A user may be made to perform assignment of a provider or a service course at a house, without specifying a provider or a service course like the gestalt 1 of operation in a dealer. In this case, if a user brings television 20 home and television 20 is turned on like the gestalt 1 of operation, it will dial [ means / 22 / above-mentioned / acquisition ] up to the above-mentioned connection exchange server 10, and it will transmit the identification information 320 of the television 20 concerned to the above-mentioned connection exchange server 10 ( drawing 5 , S501-S502). Then, the above-mentioned connection news offer means 14 acquires only one predetermined initial entry 300 memorized by the above-mentioned connection information storage means 12, and transmits the this acquired initial entry 300 to the above-mentioned television 20 ( drawing 5 , S503).

[0047] In order to acquire one initial entry 300 here, the above-mentioned identification information 300 is made into the telephone number by the side of television 20 among the telephone lines used for dial up to the above-mentioned connection exchange server 10 from television 20. Then, the above-mentioned connection information storage hand 14 will transmit the initial entry 300 of the access point in the same area as the area code concerned to television 20 with reference to the area code of the telephone number by the side of television 20, if the telephone number by the side of identification information 320 20, i.e.,

television, is recognized. In addition, when acquiring one initial entry 300 based on area code in this way, the initial entry 300 corresponding to the above-mentioned connection information storage means 12 is beforehand memorized only one for every area code.

[0048] If the above-mentioned acquisition means 22 acquires the initial entry which the above-mentioned initial entry offer means 14 transmitted, the above-mentioned acquisition means 22 will transmit the acquired initial entry to the above-mentioned setting-out means 25 ( drawing 5 , S504).

[0049] This setting-out means 25 is dialed up to a provider 40 through means of communications based on the initial entry 300 transmitted from the above-mentioned acquisition means 22 ( drawing 5 , S505). A provider 40 requires that the telephone number, a matter, for example, a user's identifier, required in order to connect or contract with the provider 40 concerned, the number of a credit card, etc. should be transmitted from television 20 here. If the above-mentioned setting-out means 25 receives this demand, the content of this demand will be displayed on a television screen, and a user will input the information according to the content of the display into television 20 using remote control etc. so that a user can recognize the content of this demand. Then, the above-mentioned setting-out means 25 transmits the information inputted by the user to a provider 40, and it is made to conclude an agreement with a provider 40. (Drawing 5, S506) .

[0050] As mentioned above, a user switches on the power source 20 of television, without carrying out complicated setting out to television 20 according to the content displayed on the television screen, only inputs information with familiar identifier, telephone number, number of a credit card, etc. with remote control of television 20 etc., and can choose a service course at a house.

[0051] In addition, although the above-mentioned initial entry offer means 14 has transmitted only one initial entry to television 20, you may make it transmit two or more initial entries 300 with the gestalt of this operation. However, a user needs to choose the initial entry 300 of a desired service course out of two or more initial entries 300 in this case.

[0052] (Gestalt 3 of operation) Although the gestalt 1 of operation explained the case where the user of television 20 specified a desired service course in a dealer, the gestalt of this operation explains the case where the user of television 20 tells a salesman the selection condition in which two or more service courses may be contained in a dealer like "being access point \*\* in area code (06) area."

[0053] If the selection condition of "being access point \*\* in area code (06) area" is told to a salesman from a user, as shown in drawing 6 (b), (c), and (d), he will input into an input unit 30 the selection condition 630 and User Information 610 of "being access point \*\* in area code (06) area", and the identification information 620 of television 20. ( Drawing 7 , S701) .

[0054] User Information 610, the identification information 620, and the selection condition 630 by which the input was carried out [ above-mentioned ] are transmitted to the

above-mentioned connection exchange server 10 through the Internet ( drawing 7 , S702).

[0055] If the above-mentioned connection exchange server 10 receives User Information 610, the identification information 620, and the selection condition 630 which were transmitted from the above-mentioned input terminal 30, the above-mentioned with means 11 corresponding to an initial entry will search the above-mentioned connection information storage means 12 based on the above-mentioned selection condition [ access point \*\* ] 630, i.e., "it is in area code (06) area", (drawing, S703-S704).

[0056] In addition, as shown in drawing 6 (a), two or more sorts of initial entries 608 should correspond by this retrieval here ( drawing 7 , S705).

[0057] Next, the above-mentioned with means 11 corresponding to an initial entry remembers two or more sorts of initial entries 608 concerned, and the identification information 620 which the above-mentioned connection exchange server 10 received that matching becomes possible at the time of matching or acquisition so that two or more sorts of initial entries 608 concerned can be specified using the identification information 620 to which the initial entry offer means 14 is transmitted from television 20. Furthermore, in case an initial entry 608 is transmitted to television 20 (it mentions later), the above-mentioned with means 11 corresponding to an initial entry matches User Information 610 with the initial entry 608 so that User Information 610 may also be transmitted to television 20 ( drawing 7 , S706).

[0058] On the other hand, a user brings the purchased television 20 home, inserts the telephone line in the modular jack with which television was equipped, and switches on the power source of television 20.

[0059] Then, as mentioned above, while dialing [ means / 22 / above-mentioned / acquisition ] up to the above-mentioned connection exchange server 10, the identification information 620 of television 20 is transmitted to the above-mentioned connection exchange server 10 ( drawing 7 , S707).

[0060] If the above-mentioned connection exchange server 10 receives identification information 620 from the above-mentioned acquisition means 22, the above-mentioned connection news offer means 14 will recognize the identification information 620 concerned, and this connection news offer means 14 will search the above-mentioned connection information storage means 12 based on the identification information 620 concerned ( drawing 7 , S708). Here, if it judges that there are two or more sorts of initial entries 608 to which the above-mentioned connection news offer means 14 corresponds to this retrieval, the above-mentioned connection news offer means 14 will transmit User Information 610 matched with the service information 607 and this initial entry 608 among two or more sorts of initial entries 608 applicable to this retrieval to television 20 ( drawing 7 , S709).

[0061] On the other hand, if it judges that the above-mentioned acquisition means 22 has two or more sorts of received service information 607, an above-mentioned service

information-display means 26 to constitute the acquisition means 22 concerned will display the service information 607 on these two or more kinds for example, on a television screen, as shown in drawing 8 , so that a user can grasp easily the service information 607 on these two or more kinds ( drawing 7 , S710).

[0062] A user looks at a television screen, checks the service information 607, and chooses the service information 609 on a desired service course with the selection reception means 24, such as TV remote control, here. The provider name 601 and the service course name 603 are transmitted to the above-mentioned connection exchange server 10 by the above-mentioned acquisition 22 among the service information 609 chosen here ( drawing 7 , S711).

[0063] Next, if the above-mentioned connection exchange server 10 receives the provider name 601 and the service course name 603 which the user chose from the above-mentioned acquisition means 22, the above-mentioned initial entry offer means 14 will search the above-mentioned connection information storage means 12 based on the telephone number 612 of the user in the provider name 601 concerned, the service course name 603, and User Information 610. Next, as shown in drawing 6 , the above-mentioned initial entry offer means 14 transmits the initial entry 650 which corresponded by this retrieval to television 20 ( drawing 7 , S712).

[0064] The above-mentioned acquisition means 22 will transmit User Information 610 and the initial entry 650 received here to the above-mentioned setting-out means 25, if the initial entry 650 transmitted from the above-mentioned initial entry offer means 14 is received ( drawing 7 , S713).

[0065] If the above-mentioned setting-out means 25 is received with an initial entry 650 and User Information 610, the above-mentioned setting-out means 25 will do like a publication a series of activities for contracting with the service course which a provider 40 offers instead of a user on the gestalt 1 of operation based on an initial entry 650 and User Information 610. ( Drawing 7 , S714) .

[0066] Thus, if the conditions for selection of a service course are specified in the dealer, a user can choose a desired service course at a house out of the service course which filled the selection condition specified in the dealer.

[0067] In addition, the above-mentioned television 20 can be materialized using a computer. In that case, handshake point information is beforehand stored in a computer, and the above-mentioned selection reception means 24, the above-mentioned setting-out means 25, and the above-mentioned service information-display means 26 are further materialized by operating a program on a computer. Moreover, the program for operating a computer as an information terminal may be recorded on the record medium which can be read by computer used for install of a program, activation, a negotiation, etc.

[0068] Although the case where television used as an information terminal was described above, if network connection functions of an information terminal, such as a set top box, are

also \*\*\*\*\* terminals, the class of information terminal will not be limited.

[0069]

[Effect of the Invention] A user only switches on the power source of an information terminal, and comes to set up for a setting-out means connecting with the repeating installation which offers the service course of a request of an information terminal. Therefore, in order for a user to connect an information terminal to repeating installation, it is not necessary to carry out complicated setting out to an information terminal.

[0070] Furthermore, in order not to perform complicated setting out, the request about setting out from a user does not need to be lost, and a dealer does not need to perform reservation of a staff etc. for such a request.

[0071] Moreover, since the information about the repeating installation which a connection exchange server possesses is updated at any time through a network etc., a connection exchange server can transmit the information about the newest repeating installation to an information terminal.

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## DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] The block diagram showing the outline of this invention.

[Drawing 2] The flow chart which shows the procedure of setting out for connection.

[Drawing 3] Drawing having shown an initial entry, User Information, identification information, and a selection condition.

[Drawing 4] Drawing having shown the scene where service information was displayed.

[Drawing 5] The flow chart which shows the procedure of setting out for connection.

[Drawing 6] An initial entry, User Information, identification information, drawing having shown an example of a selection condition.

[Drawing 7] The flow chart which shows the procedure of setting out for connection.

[Drawing 8] An initial entry, User Information, identification information, drawing having shown an example of a selection condition. Drawing having shown the scene where service information was displayed.

[Description of Notations]

10 Connection Exchange Server

11 With Means corresponding to Initial Entry

12 Connection Information Storage Means

14 Initial Entry Supply Means

15 Updating Recognition Means

20 Information Terminal

22 Acquisition Means

24 Selection Reception Means

25 Setting-Out Means

26 Service Information-Display Means

27 Handshake Point Information Storage Means

30 Input Unit

40 Provider (Repeating Installation)